

O1B

Increase Consistency

Among Investigators

QSIT VALIDATION WORKSHEET

Item #	Goal/Outcome	
O1B (Activity 1)	Increase consistency among investigators for conducting comprehensive Quality System inspections of medical device manufacturers.	
Term¹	Type of activity (test or analysis)	Parameter(s) to be measured
Short	Analysis	Inspectional Objectives and narrative "linkages" described within the "QSIT Inspection handbook"
Scope and nature of the process to be followed.²	<p>Compare the structure of a QSIT inspection described within the QSIT Inspection Handbook to that of the current comprehensive inspection technique described within DRAFT CP 7382.830 INSPECTION OF MEDICAL DEVICE MANUFACTURERS (May 1997) and the GUIDE TO INSPECTIONS OF MEDICAL DEVICE MANUFACTURERS (December 1997). Determine whether QSIT or the existing technique provides for a more defined, succinct and prescriptive methodology for the comprehensive inspection of medical device manufacturers. Providing a defined, succinct and prescriptive methodology to all FDA medical device manufacturers will help ensure increased consistency in the inspection of medical device manufacturers by investigators.</p> <p>Overall responsibility for this activity: R. Ruff (HFR-CE350)</p>	
Acceptance criteria (if known)	QSIT inspectional objectives and linkages provide for a more well defined, succinct and prescriptive methodology for the inspection of medical device manufacturers than the current technique.	
Extent to which the activity measures/confirms how well the goal/outcome has been met.³ (strengths and weaknesses of this validation activity)	<p>This activity will provide direct and objective evidence that the QSIT provides a more well defined, succinct and prescriptive methodology for the inspection of medical device manufacturers than the current technique. A potential weakness in this activity is that some may debate whether a prescriptive technique is effective as a less prescriptive technique.</p>	
Reason(s) why the activity represents one of the best approaches to measuring the accomplishment of the goal/outcome.	<p>This pre-deployment activity will demonstrate that the QSIT technique is more well defined, succinct and prescriptive than the current technique via a direct comparison.</p>	

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¹ Short term = pre-deployment event, long-term = post-deployment event

² Describe who, what, where, when, and how. Include an identification of baseline data that may be useful for comparing QSIT performance to the existing approach.

³ Include a discussion of any limitations in the ability of the activity to objectively measure the goal/outcome.

QSIT VALIDATION ACTIVITY REPORT

Item #	Goal/Outcome	
Q1B	Increase consistency among investigators for conducting comprehensive Quality System inspections of medical device manufacturers.	
Activity #	Type of activity (test or analysis)	Parameter(s) to be measured
1	Analysis	Inspectional Objectives and narrative "linkages" described within the "QSIT Inspection Handbook"
Acceptance Criteria	QSIT inspectional objectives and linkages provide for a more well defined, succinct and prescriptive methodology for the inspection of medical device manufacturers than the current technique.	
Summary of Results	<p>A comparison of the structure of a "QSIT" inspection described within the QSIT Inspection Handbook to that of the current comprehensive inspection technique ("T1997C") described within DRAFT CP 7382.830 INSPECTION OF MEDICAL DEVICE MANUFACTURERS (May 1997) and the GUIDE TO INSPECTIONS OF MEDICAL DEVICE MANUFACTURERS (December 1997) was conducted and analyzed. A table documenting the comparison appears as Attachment 1. Both techniques were described in terms of "Tasks". Each task was extracted from the appropriate inspectional reference and documented on Attachment 1. This activity attempted to extract only the tasks which an inspector is instructed to complete during a QSIT or T1997C inspection. Where either technique consisted of narrative discussions of regulatory requirements, no tasks were inferred. An analysis of the number of tasks required to accomplish (1) a comprehensive inspection of a non-sterile medical device manufacturer and (2) a comprehensive inspection of a sterile medical device manufacturer was conducted. This analysis appears as Attachment 2. For this activity the following assumptions were made (1) QS Regulation, MDR, Tracking and Corrections and Removals requirements were all applicable and (2) the manufacturer determined bioburden and used a contract irradiation sterilization service. In addition, Attachment 2 includes an analysis of the number of "References Providing Inspectional Instructions" that are required to be maintained and utilized during QSIT and T1997C inspections. Results include:</p> <ol style="list-style-type: none"> 1. The comprehensive inspection of a non-sterile medical device manufacturer using QSIT requires 139 tasks and 1 reference. The comprehensive inspection of a non-sterile medical device manufacturer using T1997C requires 188 tasks and 3 references. 2. The comprehensive inspection of a sterile medical device manufacturer using QSIT requires 151 tasks and 1 reference. The comprehensive inspection of a sterile medical device manufacturer using T1997C requires 231 tasks and 4 references. 3. T1997C does not reflect contemporary inspectional requirements. E.g. (1) T1997C instructs the investigator to use the "Design Control Inspectional Strategy included in CP7382.830 Attachment F" and provides guidance from the "Transition" period. The referenced strategy has been obsolete and the transition period has been over since June of 1998. 4. QSIT provides a sampling methodology or a specific number when records are reviewed. T1997C provides sampling instructions only in CP7382.830A for field examination of sterile packages. In a number of tasks, T1997C requires inspection of "all" records. E.g. (1) "Review all records for the proper disposition of nonconforming products for assurance that use of nonconforming product has not resulted in the distribution of defective devices.", and (2) "Verify history records representing individual devices or lots of devices exist for all finished devices manufactured." <p>This activity has demonstrated that QSIT will accomplish a comprehensive inspection (including Corrections and Removals) of a non-sterile medical device manufacturer in approximately 26% fewer tasks than T1997C (excluding Corrections and Removals) and utilizing approximately 67% fewer reference sources. This activity has demonstrated that QSIT will accomplish a comprehensive inspection (including Corrections and Removals) of a sterile medical device manufacturer in approximately 35% fewer tasks than T1997C (excluding Corrections and Removals) and utilizing 75% fewer reference sources. Through the use of sampling, QSIT provides "end points" for the review of records that are not prescribed in T1997C. Based upon the following facts (1) there are less tasks associated with QSIT (2) there is only one reference source associated with QSIT (also consider ease of maintenance) (3) the number of records reviewed is prescribed in QSIT and (4) QSIT contains contemporary inspectional requirements, QSIT has been demonstrated to provide a more well defined, succinct and prescriptive methodology for the comprehensive inspection of medical device manufacturers than T1997C.</p>	
Conclusion	The findings do [X] do not [] meet the acceptance criteria for this activity.	
Additional Comments	This analysis was conducted prior to the conclusion of QSIT Field Test activities. The number of tasks required to conduct a QSIT inspection may change (increase or decrease) based upon the QSIT Field Test activities.	
Activity Champion(s)	Robert G. Ruff, CSO (HFR-CE350)	

QSIT Validation Worksheet Item O1B Activity 1 Comparison (Attachment 1, 10 pages)

QSIT	T1997C
1. Preannouncement Activities	Reference: QSIT Handbook Task 1 - Request and review copies of Quality Policy and High Level Quality System Procedures (Management Review Procedure, Quality Plan) Task 1 - Determine if the firm has received complaints
2. Interview Management Representative	Reference: QSIT Handbook Task 1 - Management Representative (or designee) interviewed prior to the inspection of each subsystem (min. 4 ea. interviews) Task 4 - Trend complaints (if not done by firm) Task 5 - Analyze to ID existing or potential causes of nonconforming product or quality problems Task 6 - Determine if adequate complaint investigation is performed Task 7 - Determine identity of individuals reviewing complaints Task 8 - Determine the qualifications of the individuals reviewing complaints Task 9 - Confirm all complaints are covered and reported Task 10 - If no complaints received, determine if provisions are in place Task 11 - If no complaints received, determine who will be responsible and MDR reports (see Attachment A, Section I (B)...”
3. Inspect Management Controls	Reference: QSIT Handbook Objective 1: Verify... Task 1 - Quality Policy Task 2 - Management Review Procedures Task 3 - Quality Audit Procedures Task 4 - Quality System Procedures and Instructions Task 1 - Verify... Task 1 - Quality Policy has been implemented Objective 2: Verify... Task 1 - Verify... Objective 3: Review established organizational structure to assure it includes provisions for... Task 1 - responsibilities Task 2 - authorities Task 3 - resources Objective 4: Confirm... Task 1 - Management Representative has been appointed Evaluate... Task 2 - Purview of the Management Representative Objective 5: Verify... Task 1 - Management Reviews are being conducted
	Note: “Attachment A” is a list of “Class I Devices exempt from most of the GMP Requirements By Classification Regulations” Attachment C contains guidance for determining manufacturer compliance with the MDR regulation.

<p>Objective 6: Verify...</p> <ul style="list-style-type: none"> Task 1 - Quality Audits are conducted at sufficient frequency Task 2 • Effectiveness of Audit Task 3 • Independence of Auditor Task 4 • Adequacy of Audit Procedure Task 5 • Communication of findings to Upper Management Task 6 • Corrective Actions implemented and Re-audits 	<p>4. Inspect Design Controls</p> <p>Objective 1: Select Design Project (if applicable)</p> <p>Task 1 - Select a design project that meets 820.30(a)</p> <p>and (3) records of production lots which failed in-process or finished device testing.</p>	<p>Task 11 - Examine files for computer generated “deficiency” letters</p> <p>Task 12 - If deficiency letter received discuss and determine if problem resolved</p> <p>III A. 1. (cont'd) “...(2) changes which the manufacturer has made in the design or manufacturing process,</p> <p>Task 1 - Review design changes (see below “Design Control Report and Guidance”)</p> <p>Task 2 - Review manufacturing process changes</p> <p>Task 3 - Determine if changes are validated and/or verified</p> <p>Task 4 - Determine if there are a series of changes for the same problem</p> <p>Task 5 - Document all design changes on DCIS Report</p> <p>and (3) records of production lots which failed in-process or finished device testing.</p> <p>Task 1 - Determine if the firm released lots that failed to meet specifications</p> <p>Task 2 - Review DHR's or in-process control records of lots that have been rejected</p> <p>Task 3 - Report and document shipment</p> <p>Task 4 - Evaluate MRB rationales (if applicable)</p> <p>Task 5 - Review re-work records</p> <p>Task 6 - Determine if rework is adequate</p> <p>Task 7 - Determine that rework does not affect S & E</p> <p>Task 8 - Determine if sampling plans for inspection are acceptable</p> <p>Task 9 - Determine if sampling plans for rework are acceptable</p> <p>Task 10 - Analyze and trend nonconforming product records</p> <p>Task 11 - Inspect data for repeat component failures</p> <p>Task 12 - Determine if procedures to control nonconforming product are established</p> <p>Task 13 - Determine if procedure is complete</p> <p>Task 14 - Review all records of nonconforming product to ensure they didn't ship defective product.</p> <p>Task 15 - Review concessions</p> <p>Task 16 - Evaluate concessions for 510(k) applicability</p> <p>“Any indications of problems that your review identifies will provide a focus for your inspection. If you do not find indications of problems after reviewing the above records, complete the inspection as directed in the Guide to Inspection of Medical Device Manufacturers and the Design Control Inspectional Strategy...”</p> <p>Select devices for coverage based on above findings (plus service record review) or “...because of what they are made, have the highest potential for problems that could result in the design, manufacture and/or distribution of unsafe or unreliable devices.”</p>
<p>Objective 7: Confirm...</p> <ul style="list-style-type: none"> Task 1 - Essential outputs are identified Task 2 • Sources of input Task 3 - That relevant aspects were included 	<p>Task 1 - The Design and Development Plan</p> <p>Objective 2: Verify...</p> <ul style="list-style-type: none"> Task 1 - Design Control Procedures are defined and documented Task 2 - DC Procedures address the specific requirements of 820.30 <p>Objective 3: Review...</p> <p>Task 1 - The Design and Development Plan</p> <p>Objective 4: Confirm...</p> <p>Task 1 - Design Inputs were established</p> <p>Review...</p>	<p>Review...</p> <p>Task 2 - Sources of input</p> <p>Determine...</p> <p>Task 3 - That relevant aspects were included</p> <p>Objective 5: Verify...</p> <p>Task 1 - Essential outputs are identified</p> <p>Review...</p> <p>Task 2 - Method for identifying essential outputs</p> <p>Objective 6: Confirm...</p> <p>Task 1 - Verification acceptance criteria established prior to activity</p> <p>Task 2 - Validation acceptance criteria established prior to activity</p> <p>Objective 7: Determine if...</p> <p>Task 1 - Verification confirms output meets input (Sample Tables)</p> <p>Objective 8: Confirm...</p> <p>Task 1 - Validation data shows user needs and intended uses met</p>

Servicing:	Task 1 - Determine if adequate system is in place to screen service and repair reports for complaints	Task 1 - Determine whether the firm has conducted any recalls or market withdrawals	Task 1 - Determine if the results of the process cannot be fully verified by subsequent inspection and test
	Task 2 - Cross-reference service related complaints in complaint handling system	III A. 6 "Confirm that all subject recalls conducted by the establishment since the last inspection have, in fact, been reported to the district office. Also review files to determine if all events filed by the establishment as Class III recalls have been properly classified..."	Task 2 - Determine if processes are contributing to defective products
Objective 9: Confirm... Task 1 - Validation did not leave unresolved discrepancies	Task 3 - Review service reports for MDR events	Task 3 - Determine if the firm analyzes repair and service records for warranty failure trends	Task 3 - Compare these trends with corrective action documentation
	Objective 10: Confirm... Task 1 - Software is validated (if device contains software)	Task 4 - Review records of investigations to ID common failure trends	Task 4 - Conduct "detailed" inspection of CAPA records
Objective 11: Confirm... Task 1 - Risk Analysis was completed	Objective 12: Determine if... Task 1 - Validation was accomplished using initial production devices or their equivalents	Task 5 - Review trending information performed by firm	Task 5 - Review corrective actions already implemented
	Review... Task 2 - Equivalency when equivalent devices are used	Task 6 - Review service records (amount relates to same criteria as for complaints)	Task 6 - Review first and last article test results
Objective 13: Confirm... Task 1 - A pre-production change was controlled appropriately Task 2 - A post-production change was controlled appropriately	Objective 14: Determine... Task 1 - If design reviews were conducted	Task 7 - Review corrective actions for existing or potential causes of nonconforming product or other quality problems	Task 7 - If problems, question control parameters, environmental conditions, components etc.
	Confirm... Task 2 - An individual without direct responsibility was included	Task 8 - Review service records (amount relates to same criteria as for complaints)	Task 8 - Determine whether adequate prospective or retrospective validation was performed
Objective 15: Determine if... Task 1 - The design was correctly transferred Compare... Task 2 - The device master record against outputs (Sample Tables)	Task 3 - Outstanding action items have or are being resolved	Task 9 - Review service records (amount relates to same criteria as for complaints)	Task 9 - If problems, question control parameters, environmental conditions, components etc.
	Task 4 - Determine if service reports were analyzed for existing or potential causes of nonconforming product or other quality problems	Task 10 - Determine if the results of the process cannot be fully verified by subsequent inspection and test	Task 10 - If problems, question control parameters, environmental conditions, components etc.
Process Validation:			
Task 1 - Determine if the results of the process cannot be fully verified by subsequent inspection and test			

5. Inspect CAPA	Reference: QSTT Handbook	<p>Objective 1: Verify...</p> <p>Task 1 - CAPA Procedures are defined and documented</p> <p>Task 2 - CAPA Procedures address the specific requirements of 820.100</p> <p>Objective 2: Determine if... (re: corrective action)</p> <p>Task 1 - Appropriate sources of quality data have been identified Confirm...</p> <p>Task 2 - The data is being analyzed</p> <p>Objective 3: Determine if... (re: preventive action)</p> <p>Task 1 - Appropriate sources of quality data have been identified Confirm... Task 2 - The data is being analyzed</p> <p>Objective 4: Verify that quality data is... (Sample Tables)</p> <p>Task 1 - Entered</p> <p>Task 2 - Complete</p> <p>Task 3 - Accurate</p> <p>Task 4 - Timely</p> <p>Objective 5: Verify...</p> <p>Task 1 - Appropriate statistical methods are employed</p> <p>Task 2 - Non-statistical methods are employed Determine if...</p> <p>Task 3 - Results are compared across different data sources</p> <p>Objective 6: Determine if... (Sample Tables)</p> <p>Task 1 - Failure investigation procedures are followed</p> <p>Task 2 - Investigation is commensurate with the significance and risk Task 3 - Root cause identified Verify...</p> <p>Task 4 - Control for prevention of distribution of nonconforming product</p> <p>Task 1 - Appropriate actions are taken</p> <p>Objective 7: Determine if... (Sample Tables)</p> <p>Task 1 - Appropriate actions are taken</p> <p>Objective 8: Determine if...</p> <p>Task 1 - The action(s) were effective</p> <p>Task 2 - The action(s) were verified or validated Confirm...</p> <p>Task 3 - The action(s) do not adversely affect the finished device</p>	Components:
		<p>Task 1 - Determine if nonconforming devices are manufactured because of nonconforming components (review complaints, concessions, etc.)</p> <p>Task 2 - Determine if appropriate statistical method is used for acceptance sampling</p> <p>Task 3 - Review and evaluate test and/or screening of components</p> <p>Task 4 - For JIT vendors, review audit procedure and schedule</p> <p>Quality Audits:</p> <p>Task 1 - Determine if written audit procedure exists</p> <p>Task 2 - Determine frequency of audits</p> <p>Task 3 - Interview an auditor (if possible)</p> <p>Task 4 - Determine whether corrective action by upper management is being taken</p> <p>Task 5 - Confirm re-audits of deficient matters are conducted when required</p> <p>Design Controls:</p> <p>Note: Although the DRAFT CP 7382830 and December 1997 Guide to Inspection of Medical Device Manufacturers refer to the Design Control Inspectional Strategy, for this comparison, I used the tasks described in the Design Control Report and Guidance which is contemporary.</p> <p>Task 1 - Select a device subject to design controls</p> <p>Task 2 - Determine whether the design project related to an original design or modification to an existing design</p> <p>Task 3 - Determine at what stage in the design project, design controls were applied</p> <p>Task 4 - Determine if Design and Development plan is complete</p> <p>Task 5 - Determine whether the plan was reviewed, updated and approved</p> <p>Task 6 - Review design input procedures</p> <p>Task 7 - Confirm design input procedures are complete</p> <p>Task 8 - Review process for resolving incomplete, ambiguous... requirements</p> <p>Task 9 - Review how design input addresses user interface</p> <p>Task 10 - Confirm design input is reviewed, approved and documented</p> <p>Task 11 - Review design output procedures</p> <p>Task 12 - Confirm design outputs expressed in terms that allow comparison to inputs</p> <p>Task 13 - Review technique for identification of essential outputs</p> <p>Task 14 - Confirm that design output is reviewed, approved and documented</p> <p>Task 15 - Review design review procedures</p> <p>Task 16 - Assure the procedures ensure reviews are comprehensive</p> <p>Task 17 - Confirm manufacturer has IDed appropriate stages for review</p> <p>Task 18 - Review documentation from at least one design review</p>	

<p>Objective 9: Verify that... (Sampling Tables)</p> <p>Task 1 - Corrective and preventive actions are documented</p> <p>Task 2 - Corrective and preventive actions have been implemented</p> <p>Objective 10: Determine if...</p> <p>Task 1 - Information is properly disseminated to responsible individuals</p> <p>Task 2 - Information is disseminated for management review</p>	<p>6. Inspect P&PC</p>	<p>Reference: QSIT Handbook</p>	<p>Task 19 - Confirm problems or action items were addressed</p> <p>Task 20 - Review design verification procedures</p> <p>Task 21 - Review verification methods and data</p> <p>Task 22 - Review procedures for design validation</p> <p>Task 23 - Confirm validation was accomplished per procedure</p> <p>Task 24 - If "equivalent" devices used, review how "equivalency" was determined</p> <p>Task 25 - Review clinical and non-clinical evaluations</p> <p>Task 26 - Review software validation (where applicable)</p> <p>Task 27 - Identify risk analysis tools and techniques</p> <p>Task 28 - Confirm data demonstrates needs of user and intended use met</p> <p>Task 29 - Review design transfer procedure</p> <p>Task 30 - Confirm that design transfer procedures were followed</p> <p>Task 31 - Compare significant elements of DMR to finished design outputs</p> <p>Task 32 - Review design change procedures</p> <p>Task 33 - Confirm changes were made according to procedure</p> <p>Task 34 - Confirm procedure assures changes are validated or verified</p> <p>Task 35 - Confirm there is written justification when verified but not validated</p> <p>Task 36 - Confirm design changes are reviewed, approved and documented</p> <p>Task 37 - Confirm changes were appropriately communicated</p> <p>Task 38 - Confirm DHF contains necessary elements</p> <p>Task 39 - Confirm the firm can identify each device in design family or group</p> <p>PMA Devices</p> <p>Task 1 - Select a process...</p> <p>Task 1 - Select a process based on criteria</p> <p>Objective 1: Select a process... (Sample Tables)</p> <p>Task 1 - The procedures for the process selected</p> <p>Task 2 - The control methods</p> <p>Task 3 - The monitoring methods</p> <p>Confirm...</p> <p>Task 4 - Equipment is maintained</p> <p>Task 5 - Test equipment is controlled</p> <p>Task 6 - Test equipment is calibrated</p> <p>Verify...</p> <p>Task 7 - DHR's vs. DMR</p> <p>Task 8 - Purchasing controls are employed</p> <p>Task 9 - Receiving acceptance activities</p> <p>Task 10 - In-process acceptance activities</p> <p>Task 11 - Finished device acceptance activities</p> <p>Task 12 - Environmental controls</p> <p>Task 13 - Contamination controls</p> <p>Task 14 - Statistical techniques</p> <p>Objective 3: If problem with DHR's... Determine if...</p> <p>Task 1 - Nonconformance(s) were recognized</p> <p>Task 2 - Nonconformance(s) handled appropriately</p> <p>Task 3 - Quality data fed to CAPA Review...</p> <p>Task 4 - Equipment adjustment</p> <p>Task 5 - Equipment calibration</p> <p>Task 6 - Equipment maintenance</p>
			<p>Follow-up to OAI Inspection: (if applicable)</p> <p>Task 1 - Determine if site is approved</p> <p>Medical Device Tracking</p> <p>Task 1 - Determine if device is a tracked device</p> <p>Task 2 - Determine whether procedures exist</p> <p>Task 3 - Determine adequacy of procedures</p> <p>Personnel:</p> <p>Task 1 - Determine whether all previous FDA-483 observations were investigated</p> <p>Task 2 - Determine implementation of all corrective actions re: previous FDA-483</p> <p>Task 1 - Look for examples of potential training deficiencies</p> <p>Task 2 - Verify firm has procedures for identifying training needs</p>

Evaluate validation study...

- Task 7 - Instruments calibrated
- Task 8 - Instruments maintained
- Task 9 - Confirm predetermined product specifications
- Task 10 - Test sampling plans valid
- Task 11 - Objective evidence specs met consistently
- Task 12 - Tolerances challenged
- Task 13 - Equipment properly installed
- Task 14 - Equipment properly adjusted
- Task 15 - Equipment properly maintained
- Task 16 - Monitoring instruments calibrated
- Task 17 - Monitoring instruments maintained
- Task 18 - Changes properly challenged
- Task 19 - Operators appropriately qualified

Objective 5: Confirm software is validated...
Review...

- Task 1 - Software requirements document
- Task 2 - Software validation protocol
- Task 3 - Software validation activities
- Task 4 - Software change controls
- Task 5 - Software validation results

Objective 6: Verify... (Sample Tables)

- Task 1 - Employees are aware of device defects
- Task 2 - Employees conducting QC inspections aware of defects and errors

- Task 3 - Review training records
- Task 4 - Verify all personnel have been made aware of defects
- Task 5 - Verify personnel involved with verification or validation are aware of defects, etc.

Document Controls:

- Task 1 - Verify written procedures are signed and dated as approved
- Task 2 - Verify DMR is signed and dated as approved
- Task 3 - Verify DHR is signed and dated as approved
- Task 4 - Assure all documents are available at point of use
- Task 5 - Review document change records

Purchasing Controls:

- Task 1 - Verify written procedures capture necessary requirements
- Task 2 - Verify firm's evaluation of suppliers
- Task 3 - Verify type and extent of control activities is defined based on evaluations
- Task 4 - Verify that there are records of acceptable suppliers
- Task 5 - Verify the firm has written requirements for purchased items and services

Identification and Traceability:

- Task 1 - Compare DMR's with DMR to ensure appropriate components were used in each stage of manufacturing
- Task 2 - Compare DHR's against incoming and in-process acceptance activities to ensure only "passed" product was used

Production and Process Controls:

- Task 1 - Verify specifications and documented work instructions are provided for all processes in which variations could result in failure of the finished device to meet specifications
- Task 2 - Verify specification and procedure changes are reviewed and approved using a formal process and procedure
- Task 3 - Verify new specifications and procedures are reviewed and approved using a formal process and procedure
- Task 4 - Determine if components or devices are reworked
- Task 5 - Verify written rework procedures are provided
- Task 6 - Determine if manufacturer has assessed effect of rework
- Task 7 - Determine if this assessment is documented

7. Inspect Sterilization Process Controls Replaces P&PC if Sterilization is process selected for inspection	Reference: QSIT Handbook	<p>Task 1 - Validation Study Summary and Approval Or, assess complete validation study ...</p> <p>Task 1 - Instruments calibrated</p> <p>Task 2 - Instruments maintained</p> <p>Task 3 - Confirm predetermined product specifications</p> <p>Task 4 - Confirm predetermined package specifications</p> <p>Task 5 - Test sampling plans valid</p> <p>Task 6 - Objective evidence specs met consistently</p> <p>Task 7 - Tolerances challenged</p> <p>Task 8 - Equipment properly installed</p> <p>Task 9 - Equipment properly adjusted</p> <p>Task 10 - Equipment properly maintained</p> <p>Task 11 - Monitoring instruments calibrated</p> <p>Task 12 - Monitoring instruments maintained</p> <p>Task 13 - Changes properly challenged</p> <p>Task 14 - Operators appropriately qualified</p> <p>Task 15 - Periodic assessments of process adequacy</p> <p>Objective 2: Review... Task 1 - The procedures for the sterilization process selected</p> <p>Task 2 - The control methods</p> <p>Task 3 - The monitoring methods Confirm...</p> <p>Task 4 - Equipment is maintained</p> <p>Task 5 - Test equipment is controlled</p> <p>Task 6 - Test equipment is calibrated Verify...</p> <p>Task 7 - DHR's vs. DMR</p> <p>Task 8 - Purchasing controls are employed</p> <p>Task 9 - Receiving acceptance activities</p> <p>Task 10 - In-process acceptance activities</p> <p>Task 11 - Finished device acceptance activities</p> <p>Task 12 - Packaging integrity acceptance activities</p> <p>Task 13 - Environmental controls</p> <p>Task 14 - Contamination controls</p> <p>Task 15 - Statistical techniques</p>
		<p>Task 8 - Verify that there are documented inspections of environmental controls</p> <p>Task 9 - Verify the washing and toilet facilities are clean and adequate</p> <p>Task 10 - Verify clothing requirements and controls are adequate</p> <p>Task 11 - Verify that contamination procedures exist</p> <p>Task 12 - Verify that the contamination procedures are adhered to</p> <p>Task 13 - Verify eating, drinking and smoking is limited to designated areas (if applicable)</p> <p>Task 14 - Verify that sewage, trash etc. is handled appropriately</p> <p>Task 15 - Verify personnel are clean, healthy, etc.</p> <p>Task 16 - Verify personnel are excluded from affected operations when appropriate</p> <p>Task 17 - Verify written procedures require employees to report health conditions</p> <p>Task 18 - Verify there are written maintenance procedures and schedules</p> <p>Task 19 - Verify there is written documentation of maintenance activities</p> <p>Task 20 - Verify equipment inherent limitations are visibly posted</p> <p>Task 21 - Verify periodic inspections are conducted of maintenance schedules</p> <p>Task 22 - Verify that these inspections are per a written procedure</p> <p>Task 23 - Verify manufacturing material is removed or limited</p> <p>Task 24 - Verify there are written procedures for the control of man, material</p> <p>Task 25 - Verify software of production equipment is validated</p> <p>Task 26 - Verify software of quality system equipment is validated</p> <p>Task 27 - Verify changes to software are validated and approved</p> <p>Task 28 - Verify validation activities are documented</p> <p>Task 29 - Verify inspection, measuring and test equipment is checked</p> <p>Task 30 - Verify inspection, measuring and test equipment is calibrated</p> <p>Task 31 - Verify inspection, measuring and test equipment is inspected</p> <p>Task 32 - Verify inspection, measuring and test equipment is maintained</p> <p>Task 33 - Verify these activities are according to written procedures</p> <p>Task 34 - Verify these activities are documented</p> <p>Task 35 - Verify the procedures include provisions for handling, preservation and storage</p> <p>Task 36 - Verify Handling, preservation, etc. activities are documented</p> <p>Task 37 - Verify written calibration procedures include specific limits, etc.</p> <p>Task 38 - Review calibration records</p> <p>Task 39 - Verify remedial actions are documented when limits are exceeded</p> <p>Task 40 - Verify standards are traceable to nat'l or int'l standard</p> <p>Task 41 - Verify calibration records are displayed on or near ea. piece of equipment</p> <p>Task 42 - Verify calibration records include equip. ID, calib. dates, next calib. date</p>

- Objective 3:** If problem with DHR's... Determine if...
- Task 1 - Nonconformance(s) were recognized
 - Task 2 - Nonconformance(s) handled appropriately
 - Task 3 - Quality data fed to CAPA
 - Task 4 - Re-test is appropriate (if applicable)
 - Task 5 - Effects of re-sterilization are understood (if applicable)
- Review ...

Task 6 - Equipment adjustment

Task 7 - Equipment calibration

Task 8 - Equipment maintenance

Objective 4: Confirm software is validated...

Review...

- Task 1 - Software requirements document
- Task 2 - Software validation protocol
- Task 3 - Software validation activities
- Task 4 - Software change controls
- Task 5 - Software validation results

Objective 5: Verify... (Sample Tables)

Task 1 - Employees are aware of device defects

Task 2 - Employees conducting QC inspections aware of defects and errors

Sterilization EIR Reporting Requirements:

Item 1 - ID all sterilization processes used by the firm

Item 2 - ID sterilization process covered

Item 3 - ID of standard used for process covered

Item 4 - Location of sterilization sites

Item 5 - Division of responsibilities for sterilization activities

Item 6 - SAL

Item 7 - Whether or not parametric release is used

Labeling and Packaging control:

- Task 1 - Verify the firm has labeling operation control procedures
- Task 2 - Verify the procedures are adequate
- Task 3 - Verify packaging and shipping containers are adequate

Handling, Storage, Distribution and Installation

- Task 1 - Review distribution records against final inspection and quarantine records
- Task 2 - Review records of receipt and dispatch to confirm procedures are followed
- Task 3 - Review service records to ensure service is not required immediately after installation

Records:

- Task 1 - Encourage firm to mark records they deem to be confidential
- Task 2 - Review DMR for completeness
- Task 3 - Ensure there is a formal method for approving and changing the DMR
- Task 4 - Verify there are DMR's for all finished devices
- Task 5 - Verify DMR's contain evidence that labeling was examined prior to use

Pre-Approval Device Inspection (PMA, and Class III 510(k)):

- Task 1 - Verify accuracy of information submitted
- Task 2 - Assess the firm's ability to meet the QS Reg.
- Task 3 - Determine if changes were communicated to review staff

Sterile Devices:

- Task 1 - Obtain records to document any deficiencies related to validation
- Task 2 - Determine if firm is or may be manufacturing nonsterile devices (via review of release records, process records, bioburden records, product and packaging changes, etc.)
- Task 3 - Review records of lots with positive sterility test results
- Task 4 - Review records of lots with positive BI results
- Task 5 - Review any re-sterilization records due to process failures
- Task 6 - Verify re-sterilized lots were adequately reworked
- Task 7 - Verify re-sterilized lots were adequately tested

CP 7382.830A contains a number of additional tasks to be accomplished for a sterile device. E.g. Attach. B requires approximately thirty-six additional tasks for the inspection of a manufacturer who uses an irradiation contract sterilizer

<p>Inspect MDR, C&R and Tracking (Conducted during inspection of CAPA)</p>	<p>Reference: QSIT Handbook</p>
<p>MDR:</p>	<p>Objective 1: Verify... Task 1 - Written MDR procedures address the requirements of 803.17</p>
<p>Objective 2: Verify... (Sample Tables)</p>	<p>Task 1 - MDR event files are prominently IDed Task 2 - MDR event files are easy to access Confirm...</p>
<p>Task 3 - MDR event files contain the necessary information</p>	<p>Objective 3: Confirm... (Sample Tables) Task 1 - That the appropriate MDR information is identified Task 2 - That the appropriate MDR information is reviewed Task 3 - That the appropriate MDR information is documented Task 4 - That the appropriate MDR information is filed</p>
<p>C&R:</p>	<p>Objective 4: Confirm... (Sample Tables) Task 1 - That the procedures are effective (review unreported event files) Determine...</p>
	<p>Task 2 - The firm's rationale for not filing MDR's for apparent MDR events</p>
	<p>Objective 1: Determine... Task 1 - Whether the firm has implemented any corrections Task 2 - Whether the firm has implemented any removals</p>
	<p>Objective 2: Confirm... (Sample Tables) Task 1 - Select and review files of reported C&R's Task 2 - Select and review files of other CAPA's for C&R's</p>
	<p>Objective 2: Verify... (Sample Tables) Task 1 - Files of non-reportable C&R's are maintained Task 2 - Files contain the necessary information Task 3 - The files are retained for the appropriate amount of time</p>

Confirm...

Task 4 - The files do not contain evidence of unreported recalls

Task 5 - Any claims for exemption

Verify...

Task 6 - If device was sold to another firm, files were transferred

Tracking:

Objective 1: Determine...

Task 1 - If the firm manufactures a tracked device

Task 2 - If yes, if the firm is aware of its tracking obligations

Confirm...

Task 3 - If the device was purchased from another firm, that the prior firm's tracking records (or equivalents) were obtained

Objective 2: Verify...

Task 1 - The firm has established a written tracking procedure

Task 2 - The procedure contains the necessary requirements

Task 3 - Information requested by FDA is provided as requested

Task 4 - Information requested by FDA is provided within timeframes

Objective 3: Confirm...

Task 1 - The firm has audited its tracking system

Task 2 - The audit procedures are complete

Number of Tasks and Number of References Required to Conduct (1) A Comprehensive Inspection of a Non-Sterile Medical Device Manufacturer and (2) A Comprehensive Inspection of a Sterile Medical Device Manufacturer

Regulatory Requirement	Number of Tasks Required to Provide Inspectional Coverage	Number of References Providing Inspectional Instructions	Comments
QSIT	T1997C	QSIT	T1997C
Quality System Regulation (non-sterile device)	110 171*	1 3**	*Does NOT include: confirmation of PMA site approval or PMA, Class III 510(k) tasks (4 ea.) **(1) DRAFT CP 7382.830, (2) Guide to Inspections of Medical Device Manufacturers (3) Design Control Report and Guidance
Quality System Regulation (sterile device***)	122 214*	1 4****	****Device man. determines bioburden, contract irradiation sterilization ****(1) DRAFT CP 7382.830 (2) Guide to Inspections of Medical Device Manufacturers (3) Design Control Report and Guidance (4) CP 7382.830A
Medical Device Reporting	10	12 1 2	
Medical Device Tracking	9	3 1 2	
Medical Device Corrections and Removals	10	2 1 0	
Total Number of Tasks (non-sterile device)	139	188 1 3**	
Total number of references required	151	231 1 4****	
Total Number of tasks (sterile device***)			
Total number of references required			

QSIT VALIDATION WORKSHEET

Item #	Goal/Outcome	
O1B (Activity 2)	Increase consistency among investigators for conducting comprehensive Quality System inspections of medical device manufacturers.	
Term¹	Type of activity (test or analysis)	Parameter(s) to be measured
Short	Test	The comparison of FDA483 items to the steps in the flowcharts in the QSIT Handbook.
Scope and nature of the process to be followed.²	<p>During a Study initiated on 10/1/98 and having a target completion date of 12/31/98, QSIT trained investigators in DEN-DO, LOS-DO and MJN-DO are to conduct comprehensive medical device Quality System inspections using the QSIT. A total of 12 trained investigators are participating in the Study. Each investigator is to conduct a target minimum of 4 QSIT inspections.</p> <p>Beginning the week of 1/11/99, the FDA 483s for the QSIT Study inspections will be reviewed by C. Tylka, HFZ-320. The QS regulation FDA 483 items will be compared to the steps of the flowcharts in the QSIT Handbook. The flowchart steps correspond to the key elements of the firm's Quality System that are to be evaluated when performing a QSIT inspection.</p> <p>The results of the reviews will be tabulated and assessed for each investigator within each District participating in the Study.</p> <p>The match of QS regulation FDA483 items to the flowchart steps will indicate that the key elements of the Quality System were evaluated during the inspection as directed by the QSIT. Evaluation of key elements among investigators within each district correlates to a consistent approach to conducting inspections within districts*.</p> <p>Overall responsibility for this activity: T. Wells (HFZ-332) and G. Layloff (HFR-SW450)</p>	
<small>*Note: Goal/Outcome O1A addresses consistency among Districts.</small>		
Acceptance criteria (if known)	Majority of the FDA483 items correspond to the steps of the QSIT flowcharts.	
Extent to which the activity measures/confirms how well the goal/outcome has been met.³ (strengths and weaknesses of this validation activity)	This activity will provide a direct and objective measurement of whether the directives of QSIT regarding evaluation of key elements were followed. The following of the QSIT directives among investigators within the Study Districts correlates to a consistent approach to conducting inspections. This activity does not determine if consistency among investigators has increased.	
Reason(s) why the activity represents one of the best approaches to measuring the accomplishment of the goal/outcome.	This pre-deployment activity will demonstrate if the QSIT directives regarding the evaluation of key elements are being followed consistently among investigators.	

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¹ Short term = pre-deployment event, long-term = post-deployment event

² Describe who, what, where, when, and how. Include an identification of baseline data that may be useful for comparing QSIT performance to the existing approach.

³ Include a discussion of any limitations in the ability of the activity to objectively measure the goal/outcome.

QSIT VALIDATION ACTIVITY REPORT

Item #	Goal/Outcome	
O1B	Increase consistency among investigators for conducting comprehensive Quality System inspections of medical device manufacturers.	
Activity #	Type of activity (test or analysis)	Parameter(s) to be measured
2	Test	The comparison of FDA 483 items to the steps in the flowcharts in the QSIT Handbook.
Acceptance Criteria	Majority of the FDA 483 items correspond to the steps of the QSIT flowcharts.	
Summary of Results	<p>The QSIT Study was initiated on 10/1/98. It had a target completion date of 12/31/98. This date was extended to 2/19/99 in order to allow for the completion of at least 40 total QSIT inspections. During the Study period, 12 QSIT trained investigators, 4 each in DEN-DO, LOS-DO and MIN-DO, conducted medical device Quality System inspections using the QSIT.</p> <p>A total of 42 QSIT inspections were conducted during the Study. A total of 28 FDA 483s containing a total of 200 items were issued during those inspections.</p> <p>The FDA 483s were reviewed by HFZ-320 and the individual FDA 483 items were compared to the steps of the flowcharts in the QSIT Handbook.</p> <p>A tabulation of the results is attached.</p> <p>Key elements of the Quality System were evaluated among investigators within each district.</p> <p>A total of 178 of the 200 FDA 483 items were found to match the QSIT Handbook flowchart steps. Of the remaining 22 items, 10 were directly linked to CAPA and PAPC flowchart steps. The remaining 12 items appear to be linked to PAPC flowchart steps.</p>	
	The findings do <input checked="" type="checkbox"/> do not <input type="checkbox"/> meet the acceptance criteria for this activity.	
Additional Comments	As referenced in Item # O1A (Activity 2), the frequency of subsystem deficiencies was not level across the Districts. For example, deficiencies in Management were cited at a rate of approx. 3/1 (i.e. 3 FDA 483 items per FDA 483 issued) in District 1, 0.4/1 in District 2, and 2/1 in District 3. The cause(s) of this aberration is unknown. This aberration does not appear to exist among investigators within districts.	
Activity Champion(s)	Georgia Layloff (HFR-SW450) and Timothy Wells (HFZ-332)	

Item # O1B (Activity 2)

FDA 483 Review Results (QS Regulation Deficiencies)

	C	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	T
	C	O	D	E	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	O
C	1	1	3		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11
A	2		2		1	2	1	1		2			1				1			0
P	3																			1
A	4																			2
																				9
																				7
																				3
																				4
																				1
																				10

	P	1a	1b	2	3a	3b	4	5	6	7	8	9	10	11	12	13	14	15	16	17
P	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
A	2			2	1	1	4	1	1	2	1	1	2	1	2	3	1	1	3	1
P	3				1															0
C	4					1														1
																				29
																				1
																				8
																				3
																				2
																				2
																				2
																				22
Other	1				4 ¹			1 ¹	1	5		1		1	2 ¹	3		2 ²	1	
Total	9	5	6	10	6	13	15	8	9	15	9	2	5	3	5	2	1	6	2	15

¹ Linkage between PAPC and D&R

² Linkage between CAPA and D&R

Total 9 5 6 10 6 13 15 8 9 15 9 2 5 3 5 2 1 6 2 15 9 10 6 6 11 3 5 4 200

QSIT VALIDATION WORKSHEET

Item #	Goal/Outcome	
O1B (Activity 3)	Increase consistency among investigators for conducting comprehensive Quality System inspections of medical device manufacturers.	
Term¹	Type of activity (test or analysis)	Parameter(s) to be measured
Short	Test	Coverage of the 4 major subsystems of QSIT as reported in the EIR.
Scope and nature of the process to be followed.²	<p>The QSIT directs coverage of 4 major subsystems of the Quality System – Management Controls, Design Controls, Corrective and Preventive Action, and Production and Process Controls.</p> <p>During a Study initiated on 10/1/98 and having a target completion date of 12/31/98, QSIT trained investigators in DEN-DO, LOS-DO and MIN-DO are to conduct comprehensive medical device Quality System inspections using the QSIT. A total of 12 trained investigators are participating in the Study. Each investigator is to conduct a target minimum of 4 QSIT inspections.</p> <p>Beginning the week of 1/11/99, the EIRs for the QSIT Study inspections will be reviewed to determine if the major subsystems were covered during the Study inspections. The results of the reviews will be tabulated and assessed for each investigator within each District participating in the Study.</p> <p>The match of EIR reported coverage to the 4 major subsystems will indicate that the subsystems were evaluated during the inspection as directed by the QSIT. Coverage of the 4 major subsystems among investigators correlates to a consistent approach to conducting inspections*.</p> <p>Overall responsibility for this activity: T. Wells (HFZ-332) and G. Layloff (HFR-SW450)</p> <p>*Note: Goal/Outcome O1A addresses consistency among Districts.</p>	
Acceptance criteria (if known)	Majority of EIRs report coverage of the 4 major subsystems	
Extent to which the activity measures/confirms how well the goal/outcome has been met.³ (strengths and weaknesses of this validation activity)	This activity will provide a direct and objective measurement of whether the directives of QSIT coverage of the 4 major subsystems were followed. Following of the QSIT directives among investigators correlates to a consistent approach to conducting inspections. This activity does not determine if consistency among investigators has increased.	
Reason(s) why the activity represents one of the best approaches to measuring the accomplishment of the goal/outcome	This pre-deployment activity will demonstrate if the QSIT directives regarding the coverage of the 4 major subsystems are being followed consistently among investigators.	

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¹ Short term = pre-deployment event, long-term = post-deployment event

² Describe who, what, where, when, and how. Include an identification of baseline data that may be useful for comparing QSIT performance to the existing approach.

³ Include a discussion of any limitations in the ability of the activity to objectively measure the goal/outcome.

QSIT VALIDATION ACTIVITY REPORT

Item #	Goal/Outcome	
O1B	Increase consistency among investigators for conducting comprehensive Quality System inspections of medical device manufacturers.	
Activity #	Type of activity (test or analysis)	Parameter(s) to be measured
3	Test	Coverage of the 4 major subsystems of QSIT as reported in the EIR.
Acceptance Criteria	Majority of EIRs report coverage of the 4 major subsystems.	
Summary of Results	<p>The QSIT Study directs coverage of 4 major subsystems of the Quality System.</p> <p>The QSIT Study was initiated on 10/1/98. It had a target completion date of 12/31/98. This date was extended to 2/19/99 in order to allow for the completion of at least 40 total QSIT inspections. During the Study period, 12 QSIT trained investigators, 4 each in DEN-DO, LOS-DO and MIN-DO, conducted medical device Quality System inspections using the QSIT.</p> <p>A total of 42 QSIT inspections were conducted during the Study. The EIRs from 40 of those inspections were submitted for review by COB 3/10/99. The submitted EIRs were reviewed to determine if the 4 major subsystems were covered during the Study inspections.</p> <p>A tabulation of review results is attached.</p> <p>14 of 14 EIRs from District #1 reported coverage of the 4 major subsystems. 11 of 12 EIRs from District #2 reported coverage of the 4 major subsystems.* 14 of 14 EIRs from District #3 reported coverage of the 4 major subsystems.</p> <p>*In one instance, coverage of Design Controls was not attempted because Design Controls had been assessed during a previous EI of 6/25-7/10/98 and found to be NAI.</p>	
	The findings do [X] do not [] meet the acceptance criteria for this activity.	
Additional Comments	When objectionable conditions are observed based upon samples of records chosen using the sampling tables found within the QSIT Handbook, the Sampling Plans Instructions contained in the Handbook direct investigators to state in the EIR the Sampling Table and Row used to select their samples. The EIR review revealed that, in general, references to the Sampling Table and Row were not being made by the investigators. While not directly related to this particular activity, this issue is related to the Outcome O1 - Increase Consistency. Therefore, the Handbook has been revised to provide clearer instructions to the investigators regarding sampling and reporting. In addition, QSIT training materials are being designed to address this area.	
Activity Champion(s)	Georgia Layloff (HFR-SW450) and Timothy Wells (HFZ-332)	

Item # O1B (Activity 3)

EIR review for reported coverage of the 4 major subsystems.

TABULATION of REVIEW RESULTS

Inspection Code	Yes	No	Comment	*
1A1	X			B
1A2	X			B
1A3	X			B
1A4			EIR not submitted by COB 3/10/99	B
1B1	X			B
1B2	X			B
1B3	X			B
1C1	X			A
1C2	X			A
1C3	X			A
1C4	X			A
1D1	X			C
1D2	X			C
1D3	X			C
1D4	X			C
2A1	X			A
2B1	X			C
2B2	X			C
2B3	X			C
2C1	X			C
2C2	X			C
2C3	X			C
2C4	X			C
2D1	X			B
2D2	X			B
2D3	X			B
2D4		X	Design controls NAI during previous EI 6/25-7/10/98. Not covered during QSIT inspection.	B
3A1	X			C
3A2	X			C
3A3	X			C
3A4			EIR not submitted by COB 3/10/99.	C
3B1	X			C
3B2	X			C
3B3	X			C
3B4	X			C
3C1	X			B
3C2	X			B

Inspection Code	Yes	No	Comment	*
3C3	X			B
3C4	X			B
3D1	X			A
3D2	X			A
3D3	X			A
Total	39	1		

*Time in position as investigator, where A = 1-5 years, B = 6-10 years, and C >10 years

Note: When objectionable conditions are observed based upon samples chosen using the sampling tables found within the QSIT Handbook, the Sampling Plans Instructions contained in the Handbook direct investigators to state in the EIR the Sampling Table and Row used to select their samples. The EIR review revealed that, in general, references to the Sampling Table and Row were not being made by the investigators.